

SYSTEM AND METHOD FOR RECOVERING HEAT ENERGY FROM INTERCOOLED GAS TURBINE ENGINE

ABSTRACT

[0033] A system where heat energy is recovered from an intercooled gas turbine engine. This system comprises: (a) at least one gas turbine engine; (b) a compressed air stream that receives energy from the at least one gas turbine engine; (c) at least one intercooler that extracts the energy from the compressed air stream, and (d) at least one heating district. In this system, the at least one intercooler and the at least one heating district is connected by a fluid circulating loop to transfer the extracted energy from the at least one intercooler to the at least one heating district.. Another embodiment involves a method for controlling the ratio of heat energy to output shaft energy removed from an operating intercooled gas turbine engine, which comprises the step of: varying the amount of energy removed by at least one intercooler from a flowing gas stream of the gas turbine engine.